

DETAILED ACTION

1. Prior office actions are incorporated in this Office Action by reference. Applicant filed an Amendment on February 8, 2008.

Status of the Claims

2. Claims 11 and 18 are amended (by Examiner's Amendment below)

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
4. Authorization for this examiner's amendment was given in a telephone interview with Kendrick Lo (Reg. No. 54,948) on April 15, 2008.
5. The Examiner under agreement by the attorney representing the applicant has amended claims 11 and 18.

The application has been amended as follows:

Background of the Invention

[0002] Risk Management systems are known and are commonly employed by financial institutions, natural resource-based corporations, trading organizations, government regulators or other users to make informed decisions to assess and/or manage the risk

associated with the operations of the user. Such systems are well known to be computer implemented and executed by a processor.

Summary of the Invention

[0010] It is an object of the present invention to provide a novel risk management system and method which obviates or mitigates at least one disadvantage of the prior art systems. Like the prior art, systems, computer implemented methods and computer readable mediums are designed to be executed by a processor in a well known manner.

Claims

11. (Currently Amended) A computer-readable medium having computer readable instructions stored thereon when executed by a computer to perform a method, wherein a plurality of data structures defining a simulated dynamic portfolio for use with a risk management system in a simulation are embodied on said computer-readable medium, said simulated dynamic comprising a plurality of simulated instruments, the composition of said simulated dynamic portfolio being changeable under a plurality of possible future scenarios at a plurality of future time steps by a trade manager, each of the possible future scenarios having associated therewith a probability of the scenario occurring, said simulated dynamic portfolio comprising:

(a) a holdings data structure indicating simulated instruments and their quantity in said simulated dynamic portfolio; and

(b) a strategy definitions data structure indicating a trade manager in which at least one rule for a trading strategy is defined, wherein said at least one rule is dependent on at least one tracking attribute, on at least one tracking position, and on at least one trade position, wherein said at least one rule is defined prior to executing said simulation;

wherein for each of said plurality of possible future scenarios at each of said plurality of future time steps, said at least one trade manager simulates changes to said simulated dynamic portfolio by valuing said simulated dynamic portfolio and evaluating said at least one rule to produce a changed simulated dynamic portfolio, wherein said changes are dependent on the value of said at least one tracking attribute at the current time step and on the respective possible future scenario, wherein said simulated dynamic portfolio becomes said changed simulated dynamic portfolio after said changed simulated dynamic portfolio is produced, wherein said changes to said simulated dynamic portfolio are reflected in said holding structure;

wherein said valuing comprises retrieving at least one risk value for each of one or more subsets of said simulated instruments in said simulated dynamic portfolio from a database, wherein said database comprises a plurality of values for risk factors associated with said respective possible future scenario and said current time step, wherein said database further comprises a plurality of risk values computed by evaluating one or more instrument models employing one or more of said risk factors, each of said plurality of risk values being associated with an individual simulated instrument or pre-selected group of simulated instruments;

and wherein for at least one of said plurality of possible future scenarios at one or more future time steps, said trade manager invokes a risk engine in generating one or more simulated instruments not existing at the time said at least one simulation is executed by evaluating an instrument model that employs one or more of said risk factors, and adds said generated simulated instruments to the simulated dynamic portfolio in producing a changed simulated dynamic portfolio.

18. (Currently Amended) A risk management system operable on a plurality of instruments, said system comprising:

a computer processor configured to process;

(a) at least one risk engine adapted to determine a risk value for each simulated instrument of a plurality of simulated instruments, said risk value determined by evaluating an instrument model that employs one or more risk factors for said simulated instrument under one of a plurality of possible future scenarios;

(b) a database to store risk values of said plurality of simulated instruments and a plurality of values for risk factors, wherein each risk factor is associated with a possible future scenario and time step;

(c) a simulated dynamic portfolio of simulated instruments, the composition of said simulated dynamic portfolio being changeable under said plurality of possible future scenarios at a plurality of future time steps, each of the possible future scenarios having associated therewith a probability of the scenario occurring, said simulated dynamic portfolio comprising a holding structure indicating simulated instruments and their quantity in said simulated dynamic portfolio and a strategy structure indicating a trade

manager in which at least one rule for a trading strategy is defined, wherein said at least one rule is dependent on at least one tracking attribute, on at least one tracking position, and on at least one trade position, wherein said at least one rule is defined prior to executing said simulation; wherein for each of said plurality of possible future scenarios at each of said plurality of future time steps, said at least one trade manager simulates changes to said simulated dynamic portfolio by valuing said simulated dynamic portfolio and evaluating said at least one rule to produce a changed simulated dynamic portfolio, wherein said changes are dependent on the value of said at least one tracking attribute at the current time step and on the respective possible future scenario, wherein said simulated dynamic portfolio becomes said changed simulated dynamic portfolio after said changed simulated dynamic portfolio is produced, wherein said changes to said simulated dynamic portfolio are reflected in said holding structure; wherein said valuing comprises retrieving at least one risk value for each of one or more subsets of said simulated instruments in said simulated dynamic portfolio from a database, wherein said database comprises a plurality of values for risk factors associated with said respective possible future scenario and said current time step, wherein said database further comprises a plurality of risk values computed by evaluating one or more instrument models employing one or more of said risk factors, each of said plurality of risk values being associated with an individual simulated instrument or pre-selected group of simulated instruments; and wherein for at least one of said plurality of possible future scenarios at one or more future time steps, said trade manager invokes a risk engine in generating one or more simulated instruments not

existing at the time said at least one simulation is executed by evaluating an instrument model that employs one or more of said risk factors, and adds said generated simulated instruments to the simulated dynamic portfolio in producing a changed simulated dynamic portfolio; and

(d) an aggregating engine adapted to retrieve said risk values from said database to produce an output risk metric dependent on at least one risk value stored in said database and the composition of said simulated dynamic portfolio under at least one of said plurality of possible future scenarios.

Allowable Subject Matter

6. Claims 4-30 allowed.

7. The following is an examiner's statement of reasons for allowance:

The closest prior art of record is U.S. Patent 6,188,992 to Fredric J. French. French provides a method and system for managing investments having one or more characteristics. The selected investments are managed by: evaluating the performance of each investment; eliminating each investment whose performance is less than a specified performance level; and creating one or more new investment, each new investment having one or more characteristics derived from two or more of the investments whose performance is equal to or greater than the specified performance level. In regards to claims 4, 11 and 18, the closest prior art of record when taken either individually or in combination with other prior arts of records fail to teach or suggest:

- “under a plurality of possible future scenarios at a plurality of future time steps”

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- “dependent on at least one tracking attribute, on at least one tracking position, and on at least one trade position”
- “are dependent on the value of said at least one tracking attribute at the current time step and on said...possible future scenario”
- “a risk engine that generates one or more simulated instruments not existing at the time said at least one simulation is executed by evaluating an instrument model that employs one or more of said risk factors, and adds said generated simulated instruments to the simulated dynamic portfolio in producing a changed simulated dynamic portfolio”

In regards to claims 7, 14 and 21, the closest prior art of record when taken either individually or in combination with other prior arts of records fail to teach or suggest:

- “wherein each of said at least one rule is assigned a priority”

In regards to claims 8, 15 and 22, the closest prior art of record when taken either individually or in combination with other prior arts of records fail to teach or suggest:

- “wherein each of said at least one rule is evaluated...in order of priority”

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHAHID R. MERCHANT whose telephone number is (571)270-1360. The examiner can normally be reached on First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz P. Abdi can be reached on 571-272-6702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SRM

/Kambiz Abdi/
Supervisory Patent Examiner, Art
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